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Remarks

Entry of the above-noted amendments, reconsideration of the application, and allowance of all claims pending are respectfully requested. By this amendment, claims 1, 3-8, 10, 12-14, 16-27, 29-30 are amended, claim 2 is canceled, and claims 31-41 are added. These amendments to the claims constitute a bona fide attempt by applicants to advance prosecution of the application and obtain allowance of certain claims, and is in no way meant to acquiesce to the substance of the rejections. The specification has been amended to correct a typographical error. Support for the amendments can be found throughout the specification (e.g., page 8, lines 8-22; page 9, line 14, to page 10, line 7; page 21, line 17, to page 23, line 2; page 23, lines 11-24; page 27, line 23, to page 29, line 3), drawings (e.g., FIGS. 1, 2A1-2A2, and 3-8), and claims and thus, no new matter has been added. Claims 1 and 3-41 are pending.

Oath/Declaration:

The Office Action (paragraph 7, page 2) stated:

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

(i) The oath or declaration is defective because: the claim benefit of a U.S. provisional application serial number 60/122,616 and a U.S. provisional patent application serial number 60/123,291 under 35 U.S.C. §119(e) is not indicated in the oath/declaration filed on October 20, 2003.

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(ii) Applicants (first, third, fourth, fifth, and sixth inventors) have not given their post office addresses anywhere in the application papers as required by 37 CFR 1.33(a), which was in effect at the time of filing of the oath or declaration.

Applicants are in the process of providing the new oath or declaration for filing. Applicants respectfully request time be allotted for completion of this task.

Specification:

The Office Action (paragraph 8, page 3) stated:

The disclosure was objected to because of the following informalities:

- on pg. 2, line 8, "60/122.166" should be changed to "60/122,616."

The specification has been amended to correct this typographical error.

Withdrawal of the objection to the disclosure is therefore respectfully requested.

Claim Rejections - 35 U.S.C. § 112:

Claims 1-22 and 29 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. This rejection is respectfully, but most strenuously, traversed.

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The Office Action (paragraph 9, page 3) states:

In claim 1, line 3, and claims 10 and 22, line 4, the limitation "dividing the channel time slots into sub-channel time slots" is vague and indefinite. It cannot be determined from the claim language as why a packet channel, i.e[.] a PDCH, divided in channel time slots would be divided into sub-channel time slots, see specification pg. 9, ll 14-18 and pg. 21, ll 17-19

To advance prosecution, applicants present the following exemplary explanation of the cited limitations, discussed with respect to the language of claim 1. For example, "a packet channel divided in channel time slots" may comprise a packet channel divided into channel time slots A, B, and C. Further, "dividing the channel time slots into sub-channel time slots" may comprise dividing the channel time slot A into sub-channel time slots a1, a2, and a3 dividing the channel time slot B into sub-channel time slots b1, b2, and b3, and dividing the channel time slot C divided into sub-channel time slots c1, c2, and c3.

Withdrawal of the § 112 rejection is therefore respectfully requested.

Claim Rejections - 35 U.S.C. § 102:

Claims 1-3, 6-16, 19-21, and 29-30 are rejected under 35 U.S.C. § 102(e) as being anticipated by Bilstrom, et al. (U.S. Patent No. 5,910,949; "Bilstrom"). This rejection is respectfully, but most strenuously, traversed.

It is well-settled that there is no anticipation unless (1) all the same elements are (2) found in exactly the same situation and (3) are united in the same way to (4) perform the identical function. Since the Office Action's citations to the applied reference is missing at least one element of each of applicants' independent claims, applicants respectfully submit that the

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claimed invention is not anticipated by the Office Action's citations to the applied reference, as further discussed below.

Applicants respectfully submit that the Office Action's citations to the applied reference, with or without modification, assuming, *arguendo*, that the modification of the Office Action's citations to the applied reference is proper, do not teach or suggest one or more elements of the claimed invention, as further discussed below.

For explanatory purposes, applicants discuss herein one or more differences between the Office Action's citations to the applied reference and the claimed invention with reference to one or more parts of the applied reference. This discussion, however, is in no way meant to acquiesce in any characterization that one or more parts of the Office Action's citations to the applied reference correspond to the claimed invention.

CLAIM 1 AND CORRESPONDING DEPENDENT CLAIMS

Applicants respectfully submit that the Office Action's citations to the applied reference do not teach or suggest one or more elements of the claimed invention. A careful reading of the Office Action's citations to the applied reference fails to teach or suggest, for example, assigning the first temporary mobile identity to the first active mobile station and the second temporary local mobile identity to the second active mobile station; inserting the first temporary mobile identity into the sub-channel feedback field to indicate the acknowledgment for the first active mobile station; inserting the second temporary mobile identity into the sub-channel assignment field to indicate the time slot assignment for the second active mobile station; and sending the packet channel feedback field in the signaling message to the first and second active mobile stations, as recited in applicants' independent claim 1.

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Bilstrom (col. 12, lines 39-60) discloses employment of a partial echo flag for packet channel assignment:

The packet channel field is used to control accesses on the RPDCH and is comprised of several flags: Busy/Reserved/Idle (BRI); Received/Not Received (R/N); Partial Echo (PE) as described in IS-136. However, in this invention, the packet channel field also contains a Partial Echo Qualifier (PEQ) flag. The BRI flag is used to indicate whether the RPDCH channel is busy, reserved, or idle. The flag may total six bits in length and is interleaved with the other PCF flags. The R/N flag is used to convey the received/not received status of individual bits sent to the base station on the RPDCH. The partial echo flag is used to indicate which mobile station attempting a connection based access has had its initial burst correctly received by the communication system. In this embodiment, the communication system sets PE equal to the seven least significant bits of the mobile station identity code sent as part of the mobile station access attempt. In addition, the partial echo flag is used to solicit or poll a response from the mobile station while it is in the process of receiving an automatic retransmission request mode transmission. In this case, the communication system sets PE equal to the PE assigned (PEA) to the mobile station in the first slot used in support of the transmission.

The partial echo flag is used to indicate which mobile station attempting a connection based access has had its initial burst correctly received by the communication system. When there is a contention opportunity, the partial echo flag is set to zero. When mobile attempts an access, the base station sends a partial echo field back to the mobile station. The mobile station sends a fixed mobile station identity code back to the base station. The communication system sets the partial echo flag equal to the seven least significant bits of the mobile station identity code. The communication system does not assign a temporary mobile identity to the mobile station. The partial echo flag is not temporarily assigned to the mobile station. The mobile station has a fixed identity code that the base station uses for indication of channel assignment. The mobile station identity code is not able to released upon completion of the transaction for

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subsequent assignment to a different mobile station. Since the communication system uses the mobile station identity code sent by the mobile station, there is no guarantee that it is unique.

Also, the packet channel field of Bilstrom has no mechanism to allow time slot assignment to one mobile station in a same signaling message that is also acknowledging another mobile station. Only one Partial Echo can be transmitted in the downlink signaling slot. Simply missing from the Office Action's citation to Bilstrom is any mention of assigning the first temporary mobile identity to the first active mobile station and the second temporary local mobile identity to the second active mobile station; inserting the first temporary mobile identity into the sub-channel feedback field to indicate the acknowledgment for the first active mobile station; inserting the second temporary mobile identity into the sub-channel assignment field to indicate the time slot assignment for the second active mobile station; and sending the packet channel feedback field in the signaling message to the first and second active mobile stations.

So, the Office Action's citation to Bilstrom fails to satisfy at least one of applicants' claim limitations.

Furthermore, the Office Action does not allege that the art of record provides any teaching, suggestion, or incentive for modifying the citation to Bilstrom to provide the claimed approach.

For all the reasons presented above with reference to claim 1, claim 1 is believed neither anticipated nor obvious over the art of the record. The corresponding dependent claims are believed allowable for the same reasons as independent claim 1, as well as for their own additional characterizations.

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CLAIM 10 AND CORRESPONDING DEPENDENT CLAIMS

Applicants respectfully submit that the Office Action's citations to the applied reference do not teach or suggest one or more elements of the claimed invention. A careful reading of the Office Action's citations to the applied reference fails to teach or suggest, for example, inserting the first temporary mobile identity into the sub-channel feedback field to indicate the acknowledgment for the first active mobile station; inserting the second temporary mobile identity into the sub-channel assignment field to indicate the time slot assignment for the second active mobile station; and sending the packet channel feedback field in the signaling message to the first and second active mobile stations, as recited in applicants' independent claim 10.

As discussed above, Bilstrom (col. 12, lines 39-60) discloses a partial echo flag that is not temporarily assigned to the mobile station. The mobile station has a fixed identity code that the base station uses for indication of channel assignment. The mobile station identity code is not able to be released upon completion of the transaction for subsequent assignment to a different mobile station. Also, the packet channel field of Bilstrom has no mechanism to allow time slot assignment to one mobile station in a same signaling message that is also acknowledging another mobile station. Only one Partial Echo can be transmitted in the downlink signaling slot. Simply missing from the Office Action's citation to Bilstrom is any mention of inserting the first temporary mobile identity into the sub-channel feedback field to indicate the acknowledgment for the first active mobile station; inserting the second temporary mobile identity into the sub-channel assignment field to indicate the time slot assignment for the second active mobile station; and sending the packet channel feedback field in the signaling message to the first and second active mobile stations.

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So, the Office Action's citation to Bilstrom fails to satisfy at least one of applicants' claim limitations.

Furthermore, the Office Action does not allege that the art of record provides any teaching, suggestion, or incentive for modifying the citation to Bilstrom to provide the claimed approach.

For all the reasons presented above with reference to claim 10, claim 10 is believed neither anticipated nor obvious over the art of the record. The corresponding dependent claims are believed allowable for the same reasons as independent claim 10, as well as for their own additional characterizations.

Withdrawal of the § 102 rejection is therefore respectfully requested.

Claim Rejections - 35 U.S.C. § 103:

Claims 26-28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bilstrom. Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Bilstrom in view of Hulthen, et al. (U.S. Patent No. 6,073,016). Claims 4, 17-18, and 22-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bilstrom in view of Lindskog, et al. (U.S. Patent No. 6,597,680; "Lindskog").

Applicants respectfully submit that the Office Action's citations to the applied references, with or without modification or combination, assuming, *arguendo*, that the modification or combination of the Office Action's citations to the applied references is proper, do not teach or suggest one or more elements of the claimed invention, as further discussed below.

For explanatory purposes, applicants discuss herein one or more differences between the Office Action's citations to the applied references and the claimed invention with reference to one or more parts of the applied references. This discussion, however, is in no way meant to

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acquiesce in any characterization that one or more parts of the Office Action's citations to the applied references correspond to the claimed invention.

CLAIM 26 AND CORRESPONDING DEPENDENT CLAIMS

Applicants respectfully submit that the Office Action's citations to the applied reference do not teach or suggest one or more elements of the claimed invention. A careful reading of the Office Action's citations to the applied reference fails to teach or suggest, for example, wherein the first one of the sub-channel feedback field and the sub-channel assignment field in the signaling message comprises the first temporary mobile identity assigned to the communication device, wherein the second one of the sub-channel feedback field and the sub-channel assignment field in the signaling message comprises the second temporary mobile identity assigned to another communication device, as recited in applicants' independent claim 26.

As described above, Bilstrom (col. 12, lines 39-60) discloses a partial echo flag that is not temporarily assigned to the mobile station. The mobile station has a fixed identity code that the base station uses for indication of channel assignment. The mobile station identity code is not able to be released upon completion of the transaction for subsequent assignment to a different mobile station. Also, the packet channel field of Bilstrom has no mechanism to allow time slot assignment to one mobile station in a same signaling message that is also acknowledging another mobile station. Only one Partial Echo can be transmitted in the downlink signaling slot. Simply missing from the Office Action's citation to Bilstrom is any mention of wherein the first one of the sub-channel feedback field and the sub-channel assignment field in the signaling message comprises the first temporary mobile identity assigned to the communication device, wherein the second one of the sub-channel feedback field and the sub-channel assignment field in the

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signaling message comprises the second temporary mobile identity assigned to another communication device.

So, the Office Action's citation to Bilstrom fails to satisfy at least one of applicants' claim limitations.

Furthermore, the Office Action does not allege that the art of record provides any teaching, suggestion, or incentive for modifying the citations to Bilstrom to provide the claimed approach.

For all the reasons presented above with reference to claim 26, claim 26 is believed neither anticipated nor obvious over the art of the record. The corresponding dependent claims are believed allowable for the same reasons as independent claim 26, as well as for their own additional characterizations.

CLAIM 23 AND CORRESPONDING DEPENDENT CLAIMS

Applicants respectfully submit that the Office Action's citations to the applied reference do not teach or suggest one or more elements of the claimed invention. A careful reading of the Office Action's citations to the applied reference fails to teach or suggest, for example, wherein the packet channel feedback field comprises the first temporary local mobile identity to indicate acknowledgment for the first active mobile station, wherein the packet channel feedback field also comprises the second temporary local mobile identity assigned to the second active mobile station to allocate the one or more of the sub-channel time slots for the second active mobile station, as recited in applicants' independent claim 23.

As described above, Bilstrom (col. 12, lines 39-60) discloses a partial echo flag that is not temporarily assigned to the mobile station. The mobile station has a fixed identity code that the base station uses for indication of channel assignment. The mobile station identity code is not

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able to released upon completion of the transaction for subsequent assignment to a different mobile station. Also, the packet channel field of Bilstrom has no mechanism to allow time slot assignment to one mobile station in a same signaling message that is also acknowledging another mobile station. Only one Partial Echo can be transmitted in the downlink signaling slot. Simply missing from the Office Action's citation to Bilstrom is any mention of wherein the packet channel feedback field comprises the first temporary local mobile identity to indicate acknowledgment for the first active mobile station, wherein the packet channel feedback field also comprises the second temporary local mobile identity assigned to the second active mobile station to allocate the one or more of the sub-channel time slots for the second active mobile station.

So, the Office Action's citation to Bilstrom fails to satisfy at least one of applicants' claim limitations.

The shortcomings of the Office Action's citation to Bilstrom relative to certain elements of the claimed invention have been discussed above. The Office Action proposes a combination of the citation to Bilstrom with a citation to Lindskog. However, the Office Action's citation to Lindskog does not overcome the deficiency of the Office Action's citation to Bilstrom. Applicants respectfully submit that the proposed combination of the Office Action's citation to Bilstrom with the Office Action's citation to Lindskog fails to provide the required approach, assuming, *arguendo*, that the combination of the Office Action's citation to Bilstrom with the Office Action's citation to Lindskog is proper.

Lindskog (col. 11, line 64, to col. 12, line 20) discloses a method and system for quickly deallocating packet traffic channels:

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In order to gain access to the PCCH, a mobile station continuously monitors the PCF's assignment sub-field in order to detect an idle status. An idle status indicates that the next uplink slot is random access opportunity. Under the IS 136 specification, the idle status is represented by a sequence of 0's. One skilled in the art will appreciate, however, that some other predetermined sequence may alternatively be used to indicate the idle status. Once an idle status is detected, the mobile station transmits a Begin frame in the next PCCH uplink and then monitors the PCF's feedback sub-field to determine if the transmission was successful. In the Begin frame, the mobile station proposes a temporary address to be used for its identity. If the reception of the Begin frame is successful and if the temporary address is accepted by the network, the next PCF field will indicate success. If, on the other hand, the temporary address was not accepted, a different temporary address will be sent explicitly by the network in an automatic repeat request (ARQ) status frame within a specified number of slots. Thereafter, the mobile station monitors the assignment sub-field of the PCF for the presence of the temporary address which indicates that the mobile station may transmit in the next uplink. Once detected, the mobile station transmits a Continue frame.

The packet channel field of Lindskog has no mechanism to allow time slot assignment to one mobile station in a same signaling message that is also acknowledging another mobile station. Only one temporary address can be transmitted in the downlink signaling slot. Simply missing from the Office Action's citation to Lindskog is any mention of wherein the packet channel feedback field comprises the first temporary local mobile identity to indicate acknowledgment for the first active mobile station, wherein the packet channel feedback field also comprises the second temporary local mobile identity assigned to the second active mobile station to allocate the one or more of the sub-channel time slots for the second active mobile station.

So, the Office Action's citation to Lindskog fails to satisfy at least one of applicants' claim limitations.

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The Office Action's citations to Bilstrom and Lindskog all fail to meet at least one of applicants' claimed features. For example, there is no teaching or suggestion in the Office Action's citations to Bilstrom or Lindskog of wherein the packet channel feedback field comprises the first temporary local mobile identity to indicate acknowledgment for the first active mobile station, wherein the packet channel feedback field also comprises the second temporary local mobile identity assigned to the second active mobile station to allocate the one or more of the sub-channel time slots for the second active mobile station.

Furthermore, the Office Action does not allege that the art of record provides any teaching, suggestion, or incentive for modifying the citations to Bilstrom and/or Lindskog to provide the claimed approach.

For all the reasons presented above with reference to claim 23, claim 23 is believed neither anticipated nor obvious over the art of the record. The corresponding dependent claims are believed allowable for the same reasons as independent claim 23, as well as for their own additional characterizations.

Withdrawal of the § 103 rejections is therefore respectfully requested.

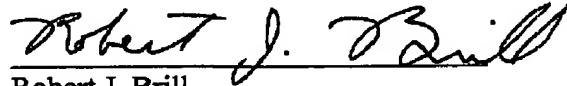
In addition, the independent claim 32 presented herewith is believed neither anticipated nor obvious over the art of record. The corresponding dependent claims are believed allowable for the same reasons as the corresponding independent claim 32, as well as for their own additional characterizations.

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In view of the above amendments and remarks, allowance of all claims pending is respectfully requested. If a telephone conference would be of assistance in advancing the prosecution of this application, the Examiner is invited to call applicants' attorney.

Respectfully submitted,



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